



[10191/1975] *AF*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Harald Beck et al.

For: METHOD AND DEVICE FOR  
CONTROLLING A WHEEL BRAKE  
OF A VEHICLE

Filed: September 27, 2005

: Examiner: Thomas J. Williams

Application No.: 09/965,776

: Art Unit: 3683

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

SIR:

Appellant submits the present Reply Brief (the two-month response date for which is December 31, 2007) to the Examiner's Answer mailed on October 31, 2007 ("the Answer").

For the reasons set forth in the Appeal Brief and those set forth below, it is again respectfully submitted that the final rejections of claims 1, 3, 5, 7 8 and 10 should be reversed for the reasons set forth below.

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Atty's Signature

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**REMARKS**

**A. The Rejections Under 35 U.S.C. § 102(b) That  
Claims 1, 3, 7, 8 and 10 Are Anticipated by “Schunck”**

Claims 1, 3, 7, 8 and 10 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,053,584 to Schunck et al. (the Schunck patent).

Appellants note that, as indicated in the Answer, this rejection has been withdrawn by the Examiner.

**B. The Rejections Under 35 U.S.C. § 102(e) That  
Claims 1, 3, 5, 7, 8 and 10 Are Anticipated by “Yano”**

Claims 1, 3, 5, 7, 8 and 10 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,332,654 to Yano (the Yano patent).

As explained in the Appeal Brief, the Yano patent does not identically disclose each of the features of independent claims 1 and 10. Specifically, the Yano patent does not disclose at least the limitations of claim 1 that include limiting a braking force or pressure, which is a function of a desired braking input based on a brake pedal operation or another control system, to a maximal value when the vehicle is at a standstill. The Yano patent also does not disclose the substantially similar limitations of claim 10 that include limiting a desired braking, which is derived from an operation of at least one of a brake pedal and at least one other control system, to a maximal value when the vehicle is at a standstill.

Instead, the relied-upon portion of the Yano patent merely refers to a conventional control methodology in which a braking pressure in a brake system is controlled to achieve a target value. (See, e.g., the Yano patent at col. 9: 21–50, especially col. 9: 30–42.) However, this is nothing at all akin to the present invention, in which a desired braking pressure is actively limited to a maxim value.

That is, in the presently claimed invention, a desired braking pressure is first determined from either a brake pedal input or by another control system. Subsequently, this determined braking pressure is actively limited to a maximal value. That is, when the desired braking pressure is above the maximal value, it is not implemented by the braking system.

Instead, in the case that the desired braking pressure is above the maximal value, the maximal value is instead implemented. Thus, contained within the present claim language is the positively recited action of limiting a possible range of values of a predetermined desired value to exclude certain possible values which are above the maximal value.

By contrast, even if, for the sake of argument, the target pressure referred to in the Yano patent can somehow be considered to be akin to the predetermined desired braking pressure, then there is, however, no mention of actively limiting this target pressure of the Yano patent to a maximal value when the vehicle is at a standstill. That is, because the Yano patent merely refers to a conventional target-value control system, the system of the Yano patent actually always implements the target value. This is in fact the very definition of a target value in a conventional target-value control system. Nowhere in the Yano patent is there any mention of first generating the target value, and subsequently comparing the target value to a maximal target value. That is, there is no mention within the Yano patent of first generating a target value which is above a maximal value and subsequently actively limiting (i.e., reducing) the generated target value to the maximal value. Instead, because the Yano patent is implementing a conventional target-value control scheme, it implements the target value every time, and never specifically decides not to implement the target value because it is above a maximal value.

Thus, for the above reasons, in addition to those presented in the Appeal Brief, the Yano patent does not disclose the feature of limiting a braking force or pressure, which is a function of a desired braking input based on a brake pedal operation or another control system, to a maximal value when the vehicle is at a standstill, as recited in claim 1, or as substantially similarly recited in claim 10. Therefore, the Yano patent does not anticipate independent claims 1 and 10.

In regards to specific comments presented by the Answer, Appellants respond as follows. Firstly, the Answer states that it is supposedly unclear as to what the above-discussed claim feature (i.e., the limiting of the desired braking pressure to a maximal value) has to do with the claimed invention. However, this is quite puzzling because this is a central feature of the claimed invention, and has been indicated to be so by the Applicants/Appellants in numerous communications with the Office (namely, e.g., in the Appeal Brief, in the response to Final Office Action, and in the specification of the

Application at page 6, line 19, to page 7, line 22, and page 9, line 25, to page 10, line 21 – which was also pointed out in the Appeal Brief). The Board of Appeals is invited consider this large, unexplainable gap in the apparent awareness of the statements of the Answer and the clear record to date in this application. To reiterate previously presented information, this claim feature provides one of the benefits of the present invention because it saves braking components from undue wear and tear by, e.g., selectively not implementing a vehicle operator's braking instructions when they are unnecessary for keeping the vehicle from moving when it is in a standstill condition.

Secondly, the Answer states that the claim feature of limiting the desired braking to the maximal value is nothing beyond functionality which is automatically included in all brake systems. However, this contention is not valid because what is claimed is not a limiting of a possible braking pressure, but instead a limiting of a desired braking pressure that is actively determined by a braking system as a function of a brake pedal input and other control systems. That is, a theoretically possible brake pressure, which may indeed be inherently limited for all braking systems, is not actively determined by braking systems, and is therefore not akin to the desired braking pressure which is subsequently limited in the present claims. For example, even though any brake system may have a theoretical maximum braking pressure it can apply, braking pressure commands beyond this limit are not generated by the system and subsequently reduced to values below this maximum theoretical limit. That is, in the case of the system of the Yano patent, the controller is not programmed to produce a target value above the maxim possible braking pressure that the system is capable of producing, and then subsequently limit it. Instead, the controller of the braking system of the Yano patent (and indeed any conventional braking system), never even generates braking pressures above the maximum possible values. Therefore, the claimed invention does not refer to, and is not akin to, a maximum possible braking pressure of braking systems.

Thirdly, the Answer again attempts to broadly interpret a target value as being akin to the claimed maximal value to which the claimed desired value is limited. However, for the reasons already discussed above, the target value of the Yano patent does not disclose the presently claimed maximal value to which the desired value is limited. To reiterate, the target value in the Yano patent is never actively limited (i.e., actively reduced from a first

target value – above a maximal value – down to the maximal value). Instead, the target value of the Yano patent is always implemented. Therefore, the Yano patent does not anticipate the features of independent claims 1 and 10.

Regarding the dependent claims, these claims are patentable at least for the reasons discussed above. However, Appellants note that these claims are also patentable for additional reasons beyond those discussed above. Specifically in regard to claim 8, the Yano patent also does not disclose the maximal limit value being based on at least one wheel brake not being used. In presenting the rejection of this claim, the Answer indicates that the Yano patent discloses this feature because “any vehicle speed value detected by the controller while the vehicle is in a standstill condition is not corrupted by a braking pressure at that wheel.” However, this basis of the rejection is not valid because the claim feature does not at all relate to corrupting of a detected speed value by a braking pressure present at a wheel. Instead, claim 8 requires that the claimed maximal value (to which the claimed desired value is actively limited) is calculated based on braking being implemented by less than the total number of wheel brakes in the system. Appellant is not aware of the Yano patent containing any teaching of using less than the total number of wheel brakes in the system, and thus the Yano patent also cannot have a teaching of calculating a maximal limit value based on not all the wheel brakes being used. Thus, for this reason, in addition to those discussed above in regards to the independent claims, claim 8 is not anticipated by the Yano patent.

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Attorney Docket No. 10191/1975  
Reply to Answer of October 31, 2007

**CONCLUSION**

In view of the above, it is respectfully requested that the rejections of claims 1, 3, 5, 7, 8 and 10 be reversed, and that these claims be allowed as presented.

Respectfully submitted,

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